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Mindfulness Within Relationships: Is Partner Discrepancy Related to Relationship Satisfaction

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MINDFULNESS WITHIN RELATIONSHIPS: IS

PARTNER DISCREPANCY RELATED TO

RELATIONSHIP SATISFACTION?

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Mindfulness has been linked with positive relationship outcomes; however, there is limited understanding regarding which facets of mindfulness are most related to couples' relationship satisfaction and the potential role of discrepancy in mindfulness between partners for relationship satisfaction. Additionally, previous studies did not account for individuals' well-being, a potential confounding variable in the association between mindfulness and relationship satisfaction. The present study examined the relation between each facet of mindfulness using the Five Facets of Mindfulness Questionnaire and relationship satisfaction (Couple Satisfaction Inventory), while controlling for well-being (Compass Assessment System) using Actor Partner Interdependence Models. The relation between discrepancies in partners' mindfulness for each facet and relationship satisfaction was also assessed. It was hypothesized that actor effects in observe, acting with awareness, and non-judge mindfulness facets, and partner effects of non-react mindfulness, would predict higher levels of relationship satisfaction. Discrepancy between partners in observe, acting with awareness, non-judge, and non-react mindfulness would predict lower relationship satisfaction. A community sample of 62 cohabiting couples (*M* age = 35.97 years, *M* relationship length = 7.53 years, 74.2% married) participated in a cross-sectional study.

Actor effects were found for observe mindfulness and total mindfulness predicting own relationship satisfaction, but only when not controlling for well-being. Counter to hypotheses, discrepancy in mindfulness facets between partners did not predict relationship satisfaction. These findings provide limited evidence that mindfulness facets predict relationship satisfaction. Findings from the present study outline the importance of controlling for well-being when assessing mindfulness within relationships to predict relationship outcomes. Future research should replicate these findings with a larger sample size and establish the temporal order between mindfulness, well-being, and relationship satisfaction using a longitudinal research design.

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CHAPTER 1:

INTRODUCTION

Mindfulness is a practice rooted in Buddhist spiritual tradition that has gained a great deal of popularity in Western cultures in the past several decades, including as a focus within psychological research. Mindfulness has demonstrated numerous individual benefits including improvements in physical and mental health (Bohlmeijer, Prenger, Taal, & Cuijpers, 2010; Grossman, Niemann, Schmidt, & Walach, 2004) as well as other areas of functioning including empathy, emotion regulation, stress recovery, executive control, and forgiveness, among others (Sedlmeier et al., 2012). Mindfulness has also been associated with positive outcomes within romantic relationships, including enhanced relationship satisfaction (McGill, Adler-Baeder, & Rodriguez, 2016), relationship stability (Khaddouma & Gordon, 2018), relationship coping abilities (Atkinson, 2013; Barnes, Brown, Krusemark, Campbell, & Rogge, 2007; Wachs & Cordova, 2007), sexual satisfaction (Khaddouma, Gordon, & Bolden, 2015), and partner acceptance (Kappen, Karremans, Burk, & Buyukcan-Tetik, 2018). These studies have demonstrated a direct link between one's own level of mindfulness and their behavior and satisfaction within the relationship (i.e., actor effects). Although there is growing empirical support for a positive association between mindfulness and one's own relationship functioning, little is understood about which aspects of mindfulness in particular are related to stronger relationships.

1.1 Operational Definitions of Mindfulness

Although researchers, including those who have developed interventions with mindfulness components, agree that mindfulness involves awareness of the present moment, operational definitions differ as to which additional elements are crucial components of mindfulness. For example, within a Mindfulness-Based Stress Reduction (MBSR) framework, Jon Kabat-Zinn (1996) defined mindfulness as "paying attention on purpose to present-moment experiences with an attitude of acceptance and non-judgmental awareness." Bishop et al. (2004) operationalized mindfulness as a self-regulation of attention to one's immediate experience, with a particular orientation marked by curiosity, openness, and acceptance. Within Dialectical Behavioral Therapy (DBT), mindfulness is considered a set of skills that facilitate "the intentional process of observing, describing, and participating in reality nonjudgmentally, in the moment, and with effectiveness" (Dimidjian & Linehan, 2003). Lastly, Fletcher and Hayes (2005) conceptualized mindfulness as "the defused, accepting, open contact with the present moment and the private events it contains as a conscious human being experientially distinct from the content being noticed" within a Relational Frame Therapy (RFT) framework. Thus, it's unclear from these operational definitions which specific factors are essential to mindfulness including acceptance, non-judgement, present-focused awareness, ability to describe your experience, or whether a mindful state must be achieved "on purpose." Additionally, within some perspectives, such as MBSR and DBT, mindfulness is conceptualized as an active skill that requires practice to develop, whereas other definitions consider mindfulness a general process or state.

In context of the many competing definitions of mindfulness, Nilsson and Kazemi (2016) conducted a systematic review of mindfulness within psychology literature and identified four

themes in the definition of mindfulness: awareness and attention, present-centeredness, the role of external events (i.e., interacting with external challenges in a mindful way), and cultivation (i.e., developing your character by intentionally interacting with the world). They also identified an additional core emphasis of ethical-mindedness that is present within Eastern conceptualizations of mindfulness, but currently absent in Western psychology conceptualizations. Within the Five Facets of Mindfulness Questionnaire (FFMQ), a common mindfulness measurement tool, mindfulness is conceptualized as having five facets: observing experiences, describing experiences, acting with awareness, being non-judging of inner experiences, and being non-reacting to inner experiences (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). These five facets were determined based on Exploratory and Confirmatory Factor Analyses using the items from five commonly-used mindfulness questionnaires, which suggested that five distinct facets exist within our current measurement of mindfulness (Baer et al., 2006). Although there are several ways to conceptualize the subcomponents of mindfulness, facets from the FFMQ are the focus of this study as the FFMQ is the most commonly used and psychometrically strong multifaceted mindfulness measure in current research (Baer et al., 2008).

1.2 Mindfulness and Relationship Satisfaction

Mindfulness researchers have identified several theoretical mechanisms by which mindfulness may predict relationship outcomes; these may shed light on which particular aspects of mindfulness are most salient for healthy relationship functioning or provide downstream positive effects within relationships. Mindfulness has been hypothesized to help relationships by increasing attunement, connection, and closeness between partners (Kabat-Zinn, 1993; Welwood, 1996). Barnes et al. (2007) hypothesized that mindfulness may improve attention to

and willingness to understand a partner's thoughts, emotions, and perspectives, as well as improve the ability to observe thoughts and emotions rather than reacting to them automatically, as Boorstein (1996) suggested. Finally, Kabat-Zinn (1993) suggested mindfulness may facilitate cognitive reappraisals of stressors and conflicts within relationships, allowing partners to perceive them as challenges rather than threats, increasing the opportunity for effective problem solving.

Furthermore, each facet of mindfulness has theoretical reasons to support its benefit if used within romantic relationships. Observe mindfulness involves noticing and attending to internal and external experiences including sensations, emotions, and cognitions (Baer et al., 2006). Skill within this facet may enable individuals to be more aware of partners' thoughts and feelings and, consequently, provide enhanced support within the relationship. Additionally, individuals may be more aware of their own thoughts, feelings, and stressors, enabling them to address conflicts with partners, potentially while they are smaller and more manageable. Describe mindfulness refers to labeling internal experiences with words (Baer et al., 2006), which may facilitate better communication regarding thoughts and feelings. Partners who are skilled at putting words to their emotions may be able to have more vulnerable and productive communication during conflicts. Acting with awareness refers to attending to one's current activities rather than running on "auto pilot" (Baer et al., 2006); this skill may enable partners to provide more intentional attention and support within the relationship and act less impulsively within conflicts. Non-judging of inner experience involves having a non-evaluative perspective toward one's own thoughts and feelings (Baer et al., 2006). This ability likely facilitates self-validation and acceptance, which may reduce individual distress, resulting in positive spill-over effects of an individual's positive mood transferring to their partner. Additionally, the ability to

be non-judging of oneself is likely to promote this perspective toward one's partner as well, potentially facilitating constructive communication and helpful attributions of partner behavior within the relationship. Finally, non-reactivity to inner experience is the tendency to allow thoughts and feelings to "come and go, without getting caught up in or carried away by them" (Baer et al., 2006). This ability likely enables individuals to better engage in emotion regulation skills, avoid unnecessary conflict, and handle conflict in a more productive manner within close relationships.

Little empirical research, however, has established relations between specific facets of mindfulness and relationship outcomes. Earlier research in the couples literature largely used the Mindful Attention and Awareness Scale (MAAS; Brown & Ryan, 2003), which does not measure distinct mindfulness facets. This measure, however, largely relates to the observe and acting with awareness facets of mindfulness, suggesting previous literature linking mindfulness and relationship satisfaction provides some preliminary support for the relation between observe and acting with awareness facets and relationship satisfaction (Barnes et al., 2007; Wachs & Cordova, 2007). More recent research using multifaceted measurement of mindfulness has demonstrated some support for each facet's relation with relationship functioning, with observe, acting with awareness, and non-judge mindfulness showing the most consistent links with relationship functioning. For example, in a study of partners in established marriages, Lenger, Gordon, and Nguyen (2017) demonstrated that describe, acting with awareness, non-judgment of inner experience, and non-reacting to inner experience mindfulness facets were all significantly associated with relationship satisfaction when assessed separately. When authors included all facets of mindfulness together, only non-judgment of inner experience remained a significant predictor of relationship satisfaction. A study on young adult dating relationships, in which

facets were tested separately, found that describing and acting with awareness were the only mindfulness facets related to relationship satisfaction for males, while none of the mindfulness facets were related to relationship satisfaction for females (Khaddouma & Gordon, 2018). Krafft, Haeger, and Levin (2017) used the Philadelphia Mindfulness Scale and found that acceptance mindfulness (similar to the FFMQ non-judge facet) but not aware mindfulness (similar to the FFMQ observe facet) independently predicted relationship satisfaction. A recent study tested these relations in an intervention setting in which individuals in committed relationships participated in mindfulness training in the context of MBSR and found that, while all facets of mindfulness improved compared to controls (i.e., their partners who had not completed MBSR), only acting with awareness mindfulness predicted increases in one's own relationship satisfaction following the intervention (Khaddouma, Coop Gordon, & Strand, 2017). Overall, these studies provide some support that all facets of mindfulness may demonstrate important links with relationship satisfaction, but there is inconsistent support for each individual facet. In the present study, we expected that observe, acting with awareness, and non-judge mindfulness would be related to one's own relationship satisfaction based on combined theoretical and empirical support.

1.3 Partner Mindfulness and Relationship Satisfaction

Relatively little is known about the extent to which one's mindfulness may predict a partner's behavior and satisfaction (i.e., partner effects). When an individual communicates to their partner poorly or reactively (e.g., with criticism, defensiveness, or by being domineering), the partner is more likely to respond back "on the offensive" with similar negative behaviors (Ross et al., 2017), creating a cycle of negative conflict communication. When considering mindfulness in the context of this pattern, it would stand to reason that if either partner is

mindful, they may be less likely to react to conflict with anger or negative communication, preventing some conflicts from escalating; the partner may also be less likely to react poorly to a partner's negative communication patterns, breaking the couple out of vicious communication cycles. If an individual, however, is less mindful, especially in non-react mindfulness, their partner may have worse satisfaction within the relationship as a result of having a more reactive partner. Therefore, testing for partner effects of mindfulness on relationship outcomes has theoretical support, particularly for the non-react facet.

Few studies to date, however, have considered partner effects of mindfulness on relationship outcomes. Lenger et al. (2017) assessed for partner effects of mindfulness facets on relationship satisfaction and did not find significant associations when assessing each facet individually. However, when assessing all mindfulness facets within the same model, there was a significant partner effect of non-react mindfulness. Similarly, within teen dating relationships, females' levels of non-reactivity to inner experience was related to relationship satisfaction for males (Khaddouma et al., 2018). Additionally, in Khaddouma et al.'s (2017) study in which one partner participated in MBSR, they found that improvements in acting with awareness and non-react mindfulness predicted increases in partners' relationship satisfaction. These findings, however, are not consistent. Barnes and colleagues (2007) did not find significant partner effects for mindfulness on communication behaviors using a unidimensional measure of mindfulness in a sample of young adult dating couples. It is important to assess the extent to which associations between facets of mindfulness, in particular non-react mindfulness, and partner relationship satisfaction replicate. In the present study, we hypothesized that non-react mindfulness would be positively related to partners' relationship satisfaction.

A limitation of previous research on mindfulness within intimate relationships is that individual psychological well-being is not accounted for within analyses. There is a growing literature demonstrating a positive association between mindfulness and well-being (Hsiao et al., 2016; Slutsky, Chin, Raye, & Creswell, 2019). A recent meta-analysis found that mindfulness was related to lower negative well-being (i.e., anxiety, depression, and stress) and higher positive well-being (i.e., subjective life satisfaction, etc.) for health professionals who had engaged in mindfulness interventions (Lomas, Medina, Ivtzan, Rupprecht, & Eiroa-Orosa, 2018). Given the link between mindfulness and well-being, studies within the couple literature demonstrating that mindfulness is related to relationship satisfaction may actually be capturing the relation between mindfulness and well-being instead. Indeed, the association between well-being and relationship satisfaction is also robust (Carr, Freedman, Cornman, & Schwarz, 2014) with a 2007 meta-analysis finding small to medium effect sizes for the relation between relationship satisfaction and well-being (Proulx, Helms, & Buehler, 2007). Therefore, it is important to control for well-being in analyses to ensure that the relation between mindfulness and relationship satisfaction is not confounded with individuals' subjective well-being.

1.4 Discrepancy in Partners' Mindfulness

Discrepancy in partner's levels of mindfulness, over and above each partner's own level of mindfulness, may also be important for relationship satisfaction. Individuals within romantic relationships tend to have similar education, religion, socioeconomic status, and other individual characteristics (Kalmijn, 1998). Moreover, relationships tend to be more stable and couples are more satisfied when partners are similar across characteristics including religion (Bleske-Rechek, Remiker, & Baker, 2009; Caspi, Herbener, & Ozer, 1992; Luo & Klohnen, 2005), attachment characteristics (Luo & Klohnen, 2005), attitudes toward marriage (Caspi et al., 1992),

family values (Arránz Becker, 2013; Roest, Dubas, Gerris, & Engels, 2009; Watson et al., 2004), and life goals (Arránz Becker, 2013). Alternatively, when there is discrepancy in relationship-relevant factors between partners, the mismatch is associated with worse relationship outcomes. Spousal discrepancy theory states that if partners are highly discrepant on a personality trait or need for closeness, it is likely to cause relationship distress and instability (Kurdek, 1993). The theory posits that such discrepancy results in difficulties due to differing appraisals and challenges with engaging in constructive communication.

There is a growing literature suggesting that partners who differ on personality characteristics and emotional states are more likely to experience relationship distress (Bentler & Newcomb, 1978; O'Rourke, Claxton, Chou, Smith, & Hadjistavropoulos, 2011). O'Rourke et al. (2011) found that similarity in openness and agreeableness in married older adults predicted relationship satisfaction. Similarly, Wang, Kim, and Boerner (2018) assessed personality similarity with older married couples and found that similarity in trait neuroticism, agreeableness, openness, and extraversion between partners predicted higher marital satisfaction with a small effect size. Although some studies suggest that non-pathological differences in personality between partners do not meaningfully affect relationship satisfaction (Dyrenforth, Kashy, Donnellan, & Lucas, 2010; Gattis, Berns, Simpson, & Christensen, 2004), it may be that couples with challenges due to strong personality differences are more likely to separate or not engage in committed relationships. Emotional similarity between partners has also been linked with relationship stability and increased relationship cohesion (Anderson, Keltner, & John, 2003). Moreover, the association between personality similarity and relationship satisfaction has been shown to be mediated by emotion similarity, suggesting that personality similarity may be

beneficial to relationships by promoting similar emotional states in partners (Gonzaga, Campos, & Bradbury, 2007).

Discrepancy in mental health between partners has also been shown to have a significant impact on relationship and individual health. Although higher levels of mental health are beneficial for individuals, discrepancies in mental health between partners at any level has been shown to be associated with lower relationship satisfaction and functioning (Gerstorf, Windsor, Hoppmann, & Butterworth, 2013). Similarly, in couples where one partner had bipolar disorder, the other partner having higher levels of depressive symptoms was associated with better partner relationship adjustment and less hostile communication in the partner with bipolar disorder (Rowe & Morris, 2012). Couples' marital distress has also been linked to discrepancies in personal distress, impulsivity, interpersonal insensitivity, and self-centered characteristics (Kilmann & Vendemia, 2013). These studies demonstrate the importance of considering spousal discrepancy in levels of mindfulness between partners in order to fully understand the role of mindfulness within relationships.

Therefore, in addition to considering how one's own mindfulness and partner's mindfulness predict marital functioning (i.e., actor and partner effects), the relationship literature and spousal discrepancy theory support considering how similar or dissimilar partners are in their levels of mindfulness. It could be important for both partners to be mindful in order for there to be beneficial relationship outcomes. If one partner is mindful and accepting while the other is less observant of their own and their partner's emotions, there may be greater conflict and dissatisfaction in line with spousal discrepancy theory (Kurdek, 1993). It also may be easier to be open and accepting if one's partner is also accepting, resulting in a bi-directional effect (Kappen et al., 2018). Despite the positive relation between mindfulness and relationship

satisfaction, it may be that if both partners have low levels of mindfulness, their similar appraisal of situations can serve as a protective factor (Gerstorf et al., 2013; Kurdek, 1993; Rowe & Morris, 2012). Alternatively, it may be the case that if both partners have low mindfulness, they may have worse understanding of their own and their partners' emotions, and may be more reactive, especially during conflicts (Barnes et al., 2007). Given that discrepancy between partners in mindfulness has not previously been assessed, it is also possible that there is not a unique contribution of partner discrepancy in mindfulness, and that actor and partner effects uniquely predict mindfulness. Based on literature demonstrating the importance of discrepancy between partners and mindfulness within relationships, in the present study we expected partner discrepancy in mindfulness facet levels to significantly predict lower relationship satisfaction.

In light of the theoretical and demonstrated links between observe, acting with awareness, non-react, and non-judge mindfulness and relationship satisfaction, we expect discrepancy in these facets to be particularly problematic within relationships. Partners who differ in their ability to observe their own and partners' thoughts and feelings in the present moment are likely to differ in their ability to address conflicts in the moment or request support from a partner. Partners who differ in these abilities over time may have difficulty addressing conflicts and meeting a partner's needs. Differences in acting with awareness in line with needs in the present moment may result in differing abilities to request or provide support to a partner, or choose helpful behaviors to assist with self or partner regulation. Mismatches in giving or providing support between partners are likely to cause distress and may result in resentment over time, especially in the partner who provides more support. If partners have discrepancy in their ability to accept and validate emotions in themselves and each other, this may be especially distressing for the individual who has discrepantly high non-judge mindfulness as they may be exerting

emotional energy on the relationship that they do not receive in turn. If partners are discrepant in the ability to be non-reactive to internal experiences, one partner may be comparatively unskilled in emotion regulation; this may result in frequent personal distress and frequent initiation of relationship conflict with few helpful coping skills to navigate such conflicts. This would likely also be distressing for the partner who is higher in this aspect of mindfulness, although they may be better able to tolerate and potentially defuse conflict themselves.

1.5 Present Study

The present study aimed to investigate the relation between mindfulness and relationship satisfaction, and to test the extent to which discrepancy in levels of mindfulness between partners predicts each person's relationship satisfaction. This study extends the literature by considering both actor and partner effects of mindfulness on relationship satisfaction in a sample of married or committed couples while controlling for well-being. Assessing the role of discrepancy in mindfulness between partners is novel and has important implications in enhancing our ability to predict relationship satisfaction and in improving our capacity to provide effective couple therapy by better understanding the significance of discrepancy in mindfulness between partners.

The first research aim was to test the relation between the facets of mindfulness and relationship satisfaction when controlling for well-being. Based on the available empirical research to date, we hypothesized there would be significant actor effects for observe, acting with awareness, and non-judge mindfulness, as well as partner effects of non-react mindfulness after controlling for well-being. The second research aim was to test the extent to which discrepancy in levels of mindfulness facets between partners predicted each person's relationship satisfaction. We expected that when both partners reported similar, higher levels of observe, acting with awareness, non-react and non-judge mindfulness facets (i.e., both high), they would

also report higher relationship satisfaction compared to couples in which one partner reported higher levels of that mindfulness facet than their partner. In contrast, we expected that discrepancy in reported levels of mindfulness between partners would be associated with lower relationship satisfaction, especially for the partner who was higher in the mindfulness facet. Levels of relationship satisfaction were expected to be average for the partner reporting lower levels on the mindfulness facet, as their skilled partner may serve as a buffer for their own lack of skill. Given documented positive associations between mindfulness and relationship outcomes, we expected that couples where both partners reported lower levels of mindfulness facets would report the lowest levels of relationship satisfaction.

CHAPTER 2:

METHODS

2.1 Participants

Sixty-two opposite-sex couples participated in a larger study of traditional mindfulness vs. Christian mindful prayer interventions and relationship functioning. To be eligible for the larger study, couples had to meet the following criteria: 1) be between the ages of 21 and 64; 2) be in an opposite-sex romantic relationship; 3) have lived together for the past year; 4) not currently be in couple therapy; 5) identify as Christian; 6) not be separated, filing for divorce, or taking steps to end their relationship; 7) have never experienced severe intimate partner violence (e.g., beating up, kicking, injuring a partner to the extent that they needed medical care) and have not experienced moderate intimate partner violence (e.g., pushing, shoving, name-calling) within the last year (as determined by the Conflict Tactics Scale; Straus, 1979); and 8) be proficient in reading and understanding English.

The mean age was 37.00 years (*SD* = 11.26) for males and 34.94 years (*SD* = 9.85) for females. Among male partners, 56.5% were non-Hispanic Caucasian, 25.8% were African-American, 12.9% were Hispanic, and 4.8% reported their race as "Other". Female partners were 54.8% non-Hispanic Caucasian, 19.4% African-American, 17.7% Hispanic, and 8.1% reported "Other." All participants were cohabiting, and had lived together, on average, for 7.53 years (*SD* = 8.35). The majority of participants were married (74.2%), and had been married, on average, for 8.75 years (*SD* = 9.40). Approximately 49% of couples had children living in the home (*M* =

1.98 children, *SD* = 1.35). Although not all partners were married, partners are referred to as "husband" and "wife" in this paper for brevity.

2.2 Procedures

The procedures were approved by the relevant Institutional Review Board. Participants were recruited through fliers and online advertisements in a large southwest U.S. metropolitan area. Prior to participation, each partner completed a phone screen to determine eligibility. If both partners were eligible, they were each sent an initial electronic questionnaire to complete before a lab visit. At the lab visit, couples listened to a brief mindfulness recording and participated in a relationship conflict conversation. Couples were also asked to complete a follow-up questionnaire one month after the lab visit. Couples were compensated $120 ($60 per partner) for their participation. Data from the initial baseline questionnaire before the lab visit are utilized in this study. Almost all of the couples (n = 60) completed the full study, but two couples only provided baseline questionnaires due to scheduling difficulties.

a. Ethics. We followed ethical research practices including having study procedures approved by the IRB and having participants provide informed consent. As part of informed consent, we explained the purpose of the research, expected duration and procedures, that participation was voluntary, that they could withdraw from the study at any time without penalty, potential risks and benefits, limits to confidentiality, and incentives for participation. Study information was kept in locked file cabinets and password-protected computers, and then de-identified after data collection was complete in order to maintain participant confidentiality.

2.3 Measures

a. Relationship Satisfaction. The 16-item version of the Couple Satisfaction Index (CSI; Funk & Rogge, 2007) was used to assess relationship satisfaction. The CSI was developed using

item response theory, and has been found to have superior convergent, divergent, and content validity compared to other measures of relationship quality, resulting in less measurement error (Funk & Rogge, 2007). Partners reported on the degree of happiness in their relationship, the degree to which they have a warm and comfortable relationship with their partner, how rewarding the relationship is, and how satisfied they felt with their relationship on 6 or 7-point Likert scales (0 to 6 or 0 to 5). Scores can range from 0 to 81, with scores below 51 indicating relationship distress; 20.34% of participants fell below the relationship distress cutoff indicating the sample was predominantly satisfied. Cronbach's alpha in this sample was $\alpha = .95$ for husbands, and $\alpha = .97$ for wives.

b. Mindfulness. Participants completed the Five Facets of Mindfulness Questionnaire (FFMQ; Baer et al., 2006), which includes 39 items that assess five domains of mindfulness: observing, describing, acting with awareness, non-judging, and non-reactivity. Participants responded to each item on a 5-point Likert scale, ranging from 1 (*never or rarely true*) to 5 (*very often or always true*). Scores for each mindfulness facet were calculated by summing the seven to eight items for each domain. In post-hoc analyses, total mindfulness scores were calculated by summing scores across the five facets. The FFMQ has strong construct validity as shown by convergent correlations with constructs such as self-compassion, emotional intelligence, and openness to experience, as well as divergent correlations with relevant constructs including difficulties with emotion regulation, thought suppression, and absentmindedness (Baer et al., 2008). The FFMQ also demonstrates criterion validity and generalizability by predicting psychiatric symptoms and well-being in both meditating and non-meditating populations (Baer et al., 2008). Cronbach's alphas for wives were as follows: observe $\alpha = .81$, describe $\alpha = .88$, aware $\alpha = .88$, non-judge $\alpha = .89$, non-react $\alpha = .80$ and total $\alpha = .90$. Cronbach's alphas for husbands

were as follows: observe α = .81, describe α = .90, aware α = .92, non-judge α = .83, non-react α = .78, and total α =.86.

c. Well-being. Well-being was measured with the 4-item Compass Assessment System—Well-being subscale (Sperry, Brill, Howard, & Grissom, 1996). Participants reported on their current level of subjective emotional and physical well-being on a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*extremely*). Total well-being scores were obtained by averaging across the four items. The Compass Assessment System has demonstrated adequate to good reliability and construct validity within psychiatric populations (Sperry et al., 1996) and good reliability within non-psychiatric marital therapy studies (Baucom, Atkins, Rowe, Doss, & Christensen, 2015). The Compass is characterized by sensitivity to changes in well-being over time (Lueger, Robert, 2012). Cronbach's alpha for total well-being was α = .65 for husbands and α = .75 for wives.

2.4 Data Analytic Plan

a. Data Reduction. The first step in data analysis was to run descriptive statistics on all variables. Additionally, we checked for outliers and assessed distributional assumptions. Any data points ± 3.29 *SD* from the mean were considered outliers and excluded from analyses (Tabachnick & Fidell, 2012). Preliminary descriptive and correlation analyses were completed with IBM SPSS v. 24 software. Next, tests of indistinguishability were completed in order to determine whether there were sex differences between partners (Ackerman, Donnellan & Kashy, 2011). Each mindfulness facet was tested separately, and couples were considered indistinguishable dyads in analyses if there were no sex differences between partners. Tests of indistinguishability were completed using Mplus version 8 software.

Analyses were completed using regression path models in order to determine the relation between each mindfulness facet and relationship satisfaction, while controlling for well-being. Path analyses were completed with Mplus version 8 software. In order to account for running multiple models, a Benjamini Hochberg test was completed to maintain the family-wise alpha at $\alpha = .05$. The false discovery rate was applied separately for each model. Original *p*-values will be reported in tables, and those that remain significant after correction will be bolded.

Models 1-5 addressed hypothesis 1 by testing the extent to which each mindfulness facet was associated with relationship satisfaction when controlling for well-being. Models 1-5 (Figure 1) were actor-partner interdependence models (APIM; Cook & Kenny, 2005) in which wife and husband mindfulness scores, determined by the FFMQ, and well-being scores, determined by the Compass Assessment System, were tested as predictors of wife and husband relationship satisfaction scores, measured by the CSI. Wife and husband mindfulness actor effects are represented by paths *a* and *d*, respectively; paths *b* and *c* represent wife and husband mindfulness partner effects, respectively. Wife and husband well-being actor effects are represented by paths *e* and *h*, respectively; paths *f* and *g* represent wife and husband well-being partner effects, respectively. In these models, the predictors were allowed to correlate, and the error terms for husband and wife CSI scores were allowed to correlate. If dyads were indistinguishable, actor and partner paths for each predictor were constrained to be equivalent between wives and husbands (i.e., *a* and *d*, *b* and *c*, *e* and *h*, *f* and *g*).

Models 6-10 addressed hypothesis 2 by testing the extent to which discrepancy between husbands and wives in each mindfulness facet predicted relationship satisfaction. In models 6-10 (Figure 2), the interaction between husband and wife mindfulness scores was included as a predictor in order to test the extent to which discrepancies in mindfulness predicted relationship

satisfaction (paths *a* and *b*). Actor mindfulness main effects are represented by paths *c* and *f* for wives and husbands, respectively; paths *d* and *e* are the mindfulness partner main effects for wives and husbands, respectively. Following best practices for testing discrepancies as predictors, the quadratic terms were included for husband and wife mindfulness scores to ensure that quadratic associations in one or both partners' scores were not inadvertently captured in the interaction score (paths *g* through *j*; Ganzach, 1997; Laird & De Los Reyes, 2013; Ohannessian, Laird, & De Los Reyes, 2016). Actor well-being main effects are represented by paths *k* and *n* for wives and husbands, respectively; paths *l* and *m* are the well-being partner main effects for wives and husbands, respectively. In these models, the predictors were allowed to correlate, and the error terms for husband and wife CSI scores were allowed to correlate. If dyads were indistinguishable, actor and partner paths for each predictor were constrained to be equivalent between wives and husbands (i.e., *c* and *f, d* and *e, g* and *j, h* and *i, k* and *n, l* and *m*). Significant interactions were probed using Preachers' online calculator (Preacher, Curran, & Bauer, 2006) to obtain simple slopes and regions of significance, following guidelines by Aiken & West (1991).

b. Power and Sensitivity Analyses. A post-hoc power analysis for models 1-5 was completed with Akerman and Kenny's APIMPowerR Shiny App (2016). The analysis indicated that with the alpha error rate set to .05 and indistinguishable dyads, actor and partner effects for mindfulness would be powered at = .201 for a small effect size, .958 for a medium effect size, and ≥ .99 for a large effect size. Thus, this study is powered to detect a minimum of a medium effect size for the relation between mindfulness facets and relationship satisfaction (Hypothesis 1) and is underpowered to detect small effect sizes. Based on effect sizes from previous studies (Lenger et al., 2017; Slutsky et al., 2019), we expected medium to small effect sizes for actor and partner effects for Hypothesis 1.

Next, G*Power software version 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009) was used to estimate power for models 6-10. The alpha error rate was set to .05. The analysis indicated that for a multivariate linear regression with seven predictors and 62 couples, the model would be powered at .094 for a small effect size, .514 for a medium effect size, and .914 for a large effect size. Consequently, this study is powered to detect only large effect sizes for the association between discrepancies in partners' levels of mindfulness and relationship satisfaction (Hypothesis 2). Although this hypothesis has not been tested in previous studies, we expected a small effect size for Hypothesis 2 based on previous studies assessing interaction effects with mindfulness and other variables (Allen, Henderson, Mancini, & French, 2017; Lenger et al., 2018), suggesting this hypothesis is likely underpowered. Therefore, this research aim should be considered preliminary and exploratory, but remains important to test given its theoretical support and potential contribution to the research literature.

CHAPTER 3:

RESULTS

3.1 Preliminary Analyses

Descriptive statistics and inter-correlations for study variables are presented in Tables 1 and 2. A check was completed for outliers, indicating that no data points were ± 3.29 *SD* from the mean (Tabachnick & Fidell, 2012). Although husband and wife CSI were moderately negatively skewed, based on Q-Q plots, transforming husband and wife CSI did not improve the distribution of the variables, so non-transformed CSI scores were used in analyses. All other study variables were normally distributed.

Correlation analyses indicated that within-person correlations between the mindfulness facets ranged from non-significant to moderate, positive correlations with the largest correlations between aware and describe facets in husbands ($r = .52$, $p < .001$) and aware and non-judge facets in wives ($r = .46$, $p < .001$). These correlation sizes support analyzing mindfulness facets separately within analyses as they are measuring distinct constructs within mindfulness. Mindfulness facets were not correlated between husbands and wives; however, paired t-tests showed that there were only differences in mindfulness facet levels between husbands and wives for the describe facet, in which wives reported significantly higher describe mindfulness, $t(61) = 2.65$, $p = .010$. There were moderate positive correlations between husband total mindfulness and husband relationship satisfaction ($r = .38$, $p = .002$) and husband total mindfulness and husband well-being ($r = .34$, $p = .007$). Wife total mindfulness and wife relationship satisfaction were not correlated, whereas there was a moderate positive correlation between wife total mindfulness and

wife well-being (r = .30, p = .020). There was a moderate positive correlation between well-being and relationship satisfaction for husbands (r = .46, p < .001) and a moderate positive correlation for wives (r = .56, p < .001). The moderate correlations between well-being and variables of interest support controlling for well-being in analyses in order to assess the relation between mindfulness and relationship satisfaction. Paired t-tests suggest there were no significant differences between husbands' and wives' reported relationship satisfaction, $t(61)$ = 0.54, p = .591, or well-being, $t(61)$ = 0.70, p = .484.

3.2 Tests of Indistinguishability

Tests of indistinguishability were completed for each mindfulness facet in order to determine if there were sex differences between husbands and wives in the relation between mindfulness and relationship satisfaction as outlined by Ackerman, Donnellan, and Kashy (2011). Specifically, an APIM model in which the means and variances of the variables, as well as the actor and partner paths between mindfulness and relationship satisfaction were constrained to be equal between husbands and wives was tested. A nonsignificant chi-square value provides evidence of indistinguishability (i.e., no sex differences). Next, well-being was added to the model, and the mean and variance in well-being, as well as the actor and partner effects associated with well-being were constrained to be equal between husbands and wives. A nonsignificant change in chi-square value between the constrained models with and without well-being indicates that there were no significant differences between husbands and wives in these relations. Finally, the squared terms and interaction representing discrepancies in mindfulness were added to the model and indistinguishability was tested in the added parameters.

Results of these indistinguishability tests are presented in Table 3. Indistinguishability tests indicated there were no sex differences between husbands and wives in relations between the mindfulness facets and relationship satisfaction, and in relations between well-being and martial satisfaction for the APIM models testing the observe, describe, aware, and non-judge mindfulness facets. For the non-react facet and the model using total mindfulness scores, however, tests of indistinguishability indicated that there were sex differences between husbands and wives in the regression paths predicting partner discrepancy and quadratic mindfulness terms. For the non-react discrepancy model, the discrepancy interaction term, quadratic mindfulness terms, discrepancy term covariances, quadratic mindfulness covariances, and means and variances for the quadratic mindfulness terms were free of constraints, while the means and variances of linear mindfulness and well-being and the actor and partner effects of linear mindfulness and well-being were constrained to be equal between husbands and wives. The APIM for total mindfulness, however, would not converge without errors when some of the indistinguishability constraints were removed. The following post-hoc modifications were made so that the model would converge: the discrepancy interaction term, the means and variances of linear mindfulness and well-being, and actor and partner effects of linear mindfulness and well-being were constrained to be equal between husbands and wives, and all other parameters were allowed to differ between husbands and wives.

3.3 Aim 1: APIM Results for Mindfulness Facets Predicting Relationship Satisfaction

Results from the APIMs testing the mindfulness facets as predictors of relationship satisfaction, controlling for well-being, are presented in Table 4. There was a significant actor effect of observe mindfulness on relationship satisfaction, $b = 0.35$, $SE = 0.17$, $p = .038$, $B = 0.16$, such that higher observe mindfulness was related to higher levels of relationship

satisfaction. This effect, however, did not remain significant after accounting for multiple tests. Across all five APIM models, the actor effect of well-being was the only significant predictor of relationship satisfaction to remain significant after corrections. Better well-being predicted higher levels of relationship satisfaction across the models.

3.4 Aim 2: Discrepancy in Husbands' and Wives' Mindfulness Predicting Relationship Satisfaction

Results from the APIMs testing the extent to which discrepancy between husband and wife mindfulness facets predicted relationship satisfaction, controlling for well-being and the linear and quadratic main effects of the mindfulness facets are presented in Table 5. There were no significant effects of partner discrepancy in mindfulness across any facets on relationship satisfaction. The actor effect of well-being was the only significant predictor of relationship satisfaction, and remained significant after the Benjamini-Hochberg correction, across all five APIM models. Better well-being predicted higher levels of relationship satisfaction across the models.

3.5 Exploratory Post-hoc Analyses Removing Well-being from APIMs

In order to assess the relation between mindfulness and relationship satisfaction without controlling for well-being, a series of exploratory post-hoc analyses were completed as shown in Tables 6 and 7. To enable a direct comparison between primary and supplemental models, model constraints were held constant between primary and supplemental models without re-testing for indistinguishability. Results from the APIMs testing the mindfulness facets as predictors of relationship satisfaction are presented in Table 6. The actor effect of observe mindfulness significantly predicted relationship satisfaction, $b = 0.53$, $SE = 0.19$, $p = .006$, $B = 0.24$, such that greater observe mindfulness was related to higher relationship satisfaction; this relation remained

significant after the Benjamini-Hochberg correction. Although the actor, $b = 0.47$, $SE = 0.19$, $p = .014$, $B = 0.22$, and the partner, $b = 0.43$, $SE = 0.19$, $p = .024$, $B = 0.20$, effects of describe mindfulness were significant predictors of relationship satisfaction, neither remained significant after the Benjamini-Hochberg correction. No other actor or partner effects were significant across mindfulness facets.

Next, the extent to which discrepancy between husband and wife mindfulness facets predicted relationship satisfaction was re-tested without controlling for well-being. These results are presented Table 7. The APIMs testing non-judge and non-react mindfulness would not converge without errors and therefore could not be estimated. There were no significant discrepancy effects across the APIMs testing the remaining three mindfulness facets.

3.6 Exploratory Analyses using Total Mindfulness Scores

Finally, in order to assess the relation between total mindfulness and relationship satisfaction, a series of exploratory post-hoc analyses were completed as shown in Tables 8-10. Results from APIMs testing actor and partner effects of total mindfulness on relationship satisfaction, controlling for well-being, are presented in Table 8. The actor effect of well-being was the only significant predictor of relationship satisfaction, $b = 9.20$, $SE = 1.67$, $p < .001$, $B = 0.43$, such that higher well-being was related to higher relationship satisfaction; this relation remained significant after the Benjamini-Hochberg correction.

Results from the APIM testing actor and partner effects of total mindfulness predicting relationship satisfaction without controlling for well-being are presented in Table 9. The actor effect of total mindfulness was a significant predictor of relationship satisfaction, $b = 0.17$, $SE = 0.06$, $p = .008$, $B = 0.22$, such that higher total mindfulness was related to higher relationship satisfaction. This relation remained significant after the Benjamini-Hochberg correction.

Results from the APIM testing the extent to which the discrepancy between husband and wife total mindfulness predicted relationship satisfaction, controlling for well-being, and the linear and squared total mindfulness terms are presented Table 10. There was no significant effect of discrepancy between partners' total mindfulness on relationship satisfaction. The actor effect of well-being was the only significant predictor of relationship satisfaction, $b = 9.56$, $SE = 1.63$, $p < .001$, such that higher well-being was related to higher relationship satisfaction. This effect remained significant after the Benjamni-Hochberg correction. A final APIM testing the discrepancy in husband and wife total mindfulness on relationship satisfaction without controlling for well-being would not converge without errors and therefore could not be estimated.

CHAPTER 4:

DISCUSSION

In the present study, we tested the association between facets of mindfulness and relationship satisfaction in husbands and wives while controlling for well-being. Further, we tested the extent to which discrepancy in husbands' and wives' mindfulness facets predicted relationship satisfaction. This study was novel in that it considered the link between mindfulness facets and relationship satisfaction over and above the effect of psychological well-being, which may have been a confounding factor in previous research linking mindfulness and relationship satisfaction. Furthermore, this was the first study to our knowledge to test discrepancy in partners' mindfulness facet levels as a predictor of relationship functioning.

Only the observe mindfulness facet emerged as a significant predictor of one's own relationship satisfaction, although this association became non-significant in the model controlling for well-being and correcting for the number of tests conducted. This finding is consistent with hypotheses and previous studies that have shown observe mindfulness is a significant predictor of relationship functioning (Barnes et al., 2007; Wachs & Cordova, 2007); however, this is not a consistent finding in the literature (Lenger, Gordon, & Nguyen, 2017). Although it is unclear why this particular facet of mindfulness predicts relationship satisfaction and the others do not, it is possible that having higher awareness of internal and external states allows partners to be better able to attend to their own and their partners' emotions and reactions. Partners who have better ability to observe others' emotional states may also have better empathic accuracy within relationships. Evidence suggests that couples may have poor empathic

accuracy for each other's daily sad emotions and assume partners share similar emotions (Kouros & Papp, 2018); thus, it is possible that by having better observational skills within relationships, partners may be better able to attend to and provide support to each other in these contexts. Furthermore, having better ability to observe one's own thoughts and emotional states may facilitate better communication and ability to solicit support within relationships. Alternatively, observe mindfulness may have been the only significant mindfulness predictor because it is the most psychometrically distinct facet. Previous research has identified that the observe facet is most dissimilar from the other FFMQ facets and often does not load onto the same factor as the other four facets when measuring the overall construct of mindfulness (Baer et al., 2006; Lilja et al., 2011). Observation of internal and external states has been demonstrated to be a core aspect of mindfulness and increases with meditation experience (Lilja, Lundh, Josefsson, & Falkenström, 2013), indicating it is an important aspect of mindfulness as a construct.

In supplemental analyses using the total mindfulness score on the FFMQ, an actor effect emerged such that one's own total mindfulness predicted better relationship satisfaction when not controlling for well-being. This finding is consistent with other studies that have not accounted for well-being and also found that total mindfulness predicts relationship satisfaction (Barnes et al., 2007; Burpee & Langer, 2005; Carson, Carson, Gil, & Baucom, 2004; Khaddouma et al., 2015; Wachs & Cordova, 2007). Thus, taken together, our findings show that total mindfulness predicted relationship satisfaction while none of the individual facets except observe mindfulness predicted relationship satisfaction. This finding could suggest that utilizing multiple facets in combination may have emergent properties in agreement with literature conceptualizing mindfulness as a multidimensional skill, which manifests itself in unique

presentations based on individual differences and an individual's stage within their mindfulness practice (Lilja et al., 2013). It may be that an individual must utilize multiple aspects of mindfulness in concert in order to reap benefits within their close relationships. Higher total mindfulness scores may also suggest that individuals are using mindfulness skills within multiple contexts, resulting in greater benefits. This finding should be interpreted with caution, however, as the relation between total mindfulness and relationship satisfaction became non-significant when controlling for well-being. Thus, an alternative explanation for these results is that better psychological well-being may account for the link between mindfulness and relationship satisfaction.

With the exception of the observe facet and total mindfulness, controlling for well-being did not explain the lack of significance in the relation between the other facets of mindfulness and relationship satisfaction. Most mindfulness facets were non-significant predictors of relationship satisfaction both with and without including well-being as a control variable. These results are inconsistent with the findings from Lenger and colleagues (2017), which found that all facets of mindfulness, except observe, predicted relationship satisfaction when tested individually. The discrepancy in findings between Lenger et al. (2017) and the present study may be explained by demographic differences between the samples. In the Lenger et al. study, participants were significantly older with an average age of 52.46, and the couples had been together for a substantially longer period of time (M = 28.30 years, SD = 8.43). In contrast, couples in the present study were on average 37.00 years old (SD = 11.26) for husbands and 34.94 years (SD = 9.85) for wives, and had lived together an average of 7.53 years (SD = 8.35). A recent study found that mindfulness is more relevant to relationship satisfaction for older couples (Lenger, Gordon, & Nguyen, 2018). Lenger and colleagues suggest that couples may

become more mindful as they grow older, potentially promoting healthy behaviors including better problem solving, emotion regulation, and positive affect. They suggest that these skills may be especially important for older couples in order to face existential challenges associated with aging, especially during a time in which they may have increased motivation to live in the present. These findings may explain why mindfulness facets were largely unrelated to relationship satisfaction in the present study. Additionally, it is likely that the present study was underpowered to detect significant actor effects for mindfulness, whereas the Lenger et al. study had a sample size of 164 couples (i.e., 2.5x the current sample) and reported having adequate power to detect effects.

Our results were counter to our hypothesis that acting with awareness and non-judge mindfulness facets would be related to own relationship satisfaction for husbands and wives. Whereas it makes intuitive sense that the non-judge and acting with awareness components of mindfulness would have strong relationship implications, it is also likely true that these mindfulness skills are particularly challenging to practice in concert with the other facets of mindfulness, especially the observe facet. Lilja et al. (2013) demonstrated that when considering mindfulness profiles across individuals, there is a great deal of individual difference, and it is most common, even for experienced meditators, to have high observe mindfulness and low non-judge mindfulness even though being non-judgmental of thoughts and emotions is a crucial aspect of mindfulness. Indeed, several studies have found a negative relation between observe and non-judge mindfulness (Baer, Smith, & Allen, 2004; Baer et al., 2006; Hansen, Lundh, Homman, & Wångby-Lundh, 2009; Lilja et al., 2011) as was seen for husbands in the present study. This pattern may illustrate a particular challenge with mindfulness practice in that it is difficult to both become self-aware of oneself and remain non-judgmental. It may be important

for future research to consider the interplay between specific facets of mindfulness rather than assessing them in isolation given the interpersonal variation and complex relations between facets.

Additionally, counter to our hypotheses, there was no evidence for partner effects of mindfulness facets (including non-react mindfulness) on relationship satisfaction. Although this finding is consistent with Barnes and colleagues' (2007) study, which also did not find partner effects of mindfulness within relationships, it is inconsistent with other literature finding partner effects for non-react mindfulness (Khaddouma et al., 2017; Khaddouma & Gordon, 2018; Lenger et al., 2017) and acting with awareness mindfulness (Khaddouma et al., 2017) on relationship satisfaction. Notably, these previous studies did not control for multiple tests completed when assessing each mindfulness facet. Additionally, Lenger and colleagues (2017) only found partner effects for non-react mindfulness when testing all mindfulness facets concurrently, but not when testing the facets in individual models as done in the present study. These findings may suggest that partner effects in mindfulness exist, but that some studies, including ours, have been underpowered to detect them. Alternatively, these effects may not be relevant for relationship satisfaction. Future studies should account for multiple statistical tests completed in order to prevent the possibility of false positive results given the necessity of using multiple models to assess various facets of mindfulness.

We also did not find evidence that discrepancy between partners' levels of any mindfulness facets (including observe, acting with awareness, non-judge, and non-react facets) or total mindfulness was associated with relationship satisfaction. These findings may indicate that discrepancy in mindfulness within relationships has no impact on relationship satisfaction. It is possible that there are benefits in relationships if either partner has higher mindfulness levels

even if the other partner has lower levels of mindfulness. For example, if only one partner is more observant of their own and their partner's emotions or is non-reactive within conflicts, these skills could still be helpful in providing support within the relationship and de-escalating conflicts, resulting in better relationship satisfaction. Alternatively, the study likely lacked sufficient power to detect discrepancy effects. Sensitivity analyses indicated that the discrepancy models would only be powered to detect a large effect size, and the discrepancy regression paths observed in the present study suggested small to trivial effect sizes. Therefore, it remains possible that discrepancy in mindfulness levels between partners is a significant predictor of relationship satisfaction, but this study was not sufficiently powered to detect the effect.

Tests of indistinguishability indicated there was no evidence of sex differences in the association between mindfulness and relationship satisfaction, with the exception of the non-react and total mindfulness discrepancy models. There is some evidence of differential effects of mindfulness between men and women including a study demonstrating lower cortisol reactivity during conflict associated with non-react mindfulness in women and describe mindfulness in men (Laurent, Laurent, Hertz, Egan-Wright, & Granger, 2013). Other literature suggests that women may benefit more than men from mindfulness-based interventions; studies to date have demonstrated greater stress reduction (de Vibe et al., 2013), greater substance use cessation (Katz & Toner, 2013), and greater hippocampus growth (Luders, Toga, Lepore, & Gaser, 2009) in women following consistent mindfulness practice. Differential effects between partners have also been found within adolescent dating relationships in which total, observe, aware, and non-react mindfulness were related to relationship stability for females only, non-react mindfulness was related to partner relationship satisfaction for females, and describe and aware mindfulness were related to relationship satisfaction for males only (Khaddouma & Gordon, 2018). Although

these studies have found different patterns of association between mindfulness and relationship outcomes for males and females, none directly tested for sex differences. Thus, the extent to which mindfulness confers greater benefits for relationship functioning for men versus women remains an empirical question in need of further study.

Finally, relationship satisfaction was the only outcome variable considered in the present study. There may be actor, partner, and/or discrepancy effects of mindfulness facets on other dimensions of relationship functioning including communication, conflict resolution, support provision, and sexual satisfaction. Previous research has linked mindfulness with better relationship coping abilities (Atkinson, 2013; Barnes et al., 2007; Wachs & Cordova, 2007), greater sexual satisfaction (Khaddouma et al., 2015), and higher partner acceptance (Kappen et al., 2018). Relationship satisfaction is a global and multifaceted "downstream" relational process in that it relies on a history of complex interactions with a partner. Therefore, the effect of mindfulness on relationship satisfaction may take some time to become evident, as other relationship processes may need to change first before global perceptions of the relationship are altered. Future research considering the relation between mindfulness or discrepancy in levels of mindfulness between partners and more "upstream" relationship processes may be more likely to establish a significant link. Such research would also be helpful in determining which relationship outcomes may be particularly related to mindfulness, furthering our understanding of the function of mindfulness within intimate relationships.

4.1 Limitations

Limitations of the current study provide directions for future research. The first limitation is related to the measurement of mindfulness using the FFMQ; findings from the present study suggest the need for new measurement tools for mindfulness. The lack of significant effects of

mindfulness on relationship satisfaction when controlling for well-being in the present study may suggest that mindfulness as measured by the FFMQ is, at least in part, measuring well-being. This is supported by a recent meta-analysis by Baer, Gu, Cavanagh, and Strauss (2019). This meta-analysis demonstrated a lack of specificity of measurement in the FFMQ such that interventions that were not targeting mindfulness ultimately increased levels of mindfulness. While mindfulness interventions did increase mindfulness levels slightly more than those not targeting mindfulness, these findings suggest that the FFMQ is measuring more than facets specific to mindfulness and is likely also capturing general positive valence and well-being (Baer et al., 2019).

Additionally, the FFMQ could be measuring another construct that is closely associated with well-being, such as emotion regulation. For example, a study by Pepping, O'Donovan, Zimmer-Gembeck, and Hanisch (2014) found that lack of emotion regulation skills mediated the relation between mindfulness levels and symptoms of psychopathology, suggesting that mindfulness interventions may actually be increasing emotion regulation skills rather than skills intrinsic to mindfulness. Further, Lenger and colleagues' (2017) paper—which found that only non-judge mindfulness had a significant actor effect for relationship satisfaction when assessing facets in the same model, whereas four facets were significant when assessing the relation in separate models—suggested that most of the predictive ability of mindfulness on relationship satisfaction is explained by shared variance between the facets. This finding conflicts with the conceptualization of mindfulness within the FFMQ that mindfulness consists of five *distinct* facets. In context of the increasing uncertainty regarding what specifically is being measured by the FFMQ, and which aspects of the FFMQ are measuring mindfulness versus related constructs (e.g., well-being, positive valence, emotion regulation), it is critical to develop a specific

measure for mindfulness that captures the breadth of our conceptualization of mindfulness. Development of such a mindfulness measure would both inform our theory of mindfulness regarding which particular elements are crucial aspects of mindfulness and increase confidence in future mindfulness research.

Another limitation is that the current study included 62 couples and was therefore underpowered to detect small effects, especially for tests of partner effects and testing the effect of discrepancy in levels of couples' mindfulness. Consequently, it is not possible to determine whether null findings are likely due to the relation not existing or the study's lack of power. Adequate power is also necessary to assess whether there are sex differences in the relation between mindfulness and relationship satisfaction between men and women. Future studies should replicate these findings with a fully powered sample. The sample size may need to be even larger than recommended from power analyses in order to assess discrepancy in mindfulness based on findings that interactions tend to be especially underpowered (Brookes et al., 2004).

A third limitation is that the current study was correlational, and therefore no causal conclusions could be drawn. Given the ability to increase levels of mindfulness through meditation practice (Kiken, Garland, Bluth, Palsson, & Gaylord, 2015), future research can extend existing studies that demonstrate a causal relation between mindfulness and increased relationship satisfaction (Carson et al., 2004; Khaddouma et al., 2017) and test whether changes in partner discrepancy in mindfulness result in changes in relationship satisfaction. Further, because the present study was cross-sectional, it was not possible to tease apart the temporal order in the association between mindfulness and relationship satisfaction. It is possible that partners who are in more satisfying relationships have better dispositional mindfulness or that the

relation between mindfulness and relationship satisfaction is explained by psychological well-being. Future directions include conducting a longitudinal study to test the extent to which changes in mindfulness facet scores (e.g., over time or in the context of a mindfulness intervention) proceed and predict changes in relationship satisfaction, over and above changes in well-being. Testing changes in each facet and how facets relate to each other over time would help address questions regarding which facets are especially beneficial within relationships and how the facets function together as multidimensional skills.

A fourth limitation is that the sample in the present study was relatively satisfied (approximately 80% of participants reported CSI levels above the distress cutoff), and mindfulness may be most relevant to relationship satisfaction when partners are in contexts that motivate them to use relationship-enhancing skills, such as when navigating conflict. Levels of relationship satisfaction within the present study are slightly higher than in previous literature demonstrating a relation between mindfulness and relationship satisfaction (Khaddouma et al., 2017; Khaddouma & Gordon, 2018; Lenger et al., 2017), although levels of satisfaction in the present study are within one standard deviation from the means reported in past studies. Future research should assess the association between mindfulness and relationship satisfaction within a sample reporting higher levels of conflict or distress, and test conflict levels as a potential moderator of this relation. Additional limitations related to the generalizability of findings based on inclusion criteria and demographic characteristics of the sample are discussed below in the ethics and diversity sections.

4.2 Ethics

To limit potential harm to participants, we excluded prospective participants with a history of moderate-to-severe domestic violence. Because participants would be asked to discuss

an area of disagreement within the relationship during the in-lab portion of the study, it was important to screen for domestic violence to limit the potential for partner retaliation following the discussion. Individuals who endorsed moderate levels of domestic violence (such as pushing, shoving, and name-calling) within the past year, or disclosed severe levels of domestic violence (including beating, kicking, or injuring such that medical attention was required) at any point were excluded from the study. Any participants who were excluded for this reason were provided contact information to local domestic violence resources. These research practices may have reduced the generalizability of the current study given that approximately 30% of individuals experience intimate partner violence during their lifetimes (Breiding, Chen, & Black, 2014). Additionally, based on CSI cutoff scores in the present study, approximately 80% of participants reported being satisfied in their relationships. These participant characteristics suggest that the findings from the present study may only generalize to couples who are satisfied and demonstrate little to no intimate partner violence.

4.3 Diversity

The obtained sample demonstrates substantial racial and ethnic diversity in that approximately half of participants reported they were non-White and/or Hispanic. Although limited sample size in the present study precludes testing for racial or ethnic differences in relations between mindfulness and relationship functioning, the racial and ethnic diversity in the sample improves the generalizability of findings. Diversity-related limitations within the present study include that only Christian and heterosexual couples met eligibility criteria. The research question for the larger study required that participants be Christian; however, this may have limited the generalizability of findings beyond Christian couples, especially in light of evidence that Christians may be reluctant to endorse or engage in mindfulness given its roots in Buddhism

and Eastern culture (Hoover, 2018). However, given that 60% of the sample in the current study endorsed having practiced meditation in the past and that average mindfulness levels on the FFMQ for the present study are within one standard deviation of those from previous studies (Khaddouma et al., 2017; Khaddouma & Gordon, 2018; Lenger et al., 2017), this was likely not a limitation for the present sample. Same-sex couples were also excluded to increase homogeneity within the sample given the limited sample size; this limits generalizability of the findings beyond heterosexual couples. Future research should include individuals from diverse religious backgrounds and sexual orientations in order to better generalize findings to other populations.

4.4 Conclusion

In conclusion, the present study found limited evidence to support an association between mindfulness and relationship satisfaction. Specifically, the observe facet and total mindfulness were positively related to one's own relationship satisfaction, and these findings were significant only without controlling for well-being. There was no evidence of significant partner effects or discrepancy effects on relationship satisfaction. These findings highlight the importance of developing psychometrically valid measures of mindfulness that are not biased by general well-being in order to ensure that the mindfulness literature is accurately assessing mindfulness rather than related constructs. It is difficult to conclude that our current measurement tools are accurately measuring mindfulness, and it is therefore unclear whether mindfulness is truly related to relationship outcomes. Further research with a larger sample is needed to conclude whether our null findings are due to a lack of an association between mindfulness and relationship satisfaction or due to the study being underpowered to detect small effects. These findings also underscore the importance of controlling for well-being within the relationship

mindfulness literature, given the strong relation between mindfulness and well-being as well as between well-being and relationship satisfaction. Future research with longitudinal designs is also needed to establish the temporal order between psychological well-being, mindfulness, and relationship satisfaction.

APPENDIX

Table 1. Means, Standard Deviations, and Correlations among Study Variables

		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.
1.	H Total Mindfulness	-															
2.	H Observe	.43**	-														
3.	H Describe	.72***	.17	-													
4.	H Aware	.79***	.07	.52***	-												
5.	H Non-judge	.35**	-.30*	.02	.34**	-											
6.	H Non-react	.42**	.30*	.19	.08	-.18	-										
7.	W Total Mindfulness	.12	.06	.12	.11	.08	-.07	-									
8.	W Observe	.10	.07	-.04	.06	-.01	.26*	.54***	-								
9.	W Describe	.02	-.02	-.06	.06	.22†	-.19	.73***	.39**	-							
10.	W Aware	.16	.01	.22†	.11	.19	-.16	.64***	.04	.23†	-						
11.	W Non-judge	-.02	-.03	.10	.01	.02	-.20	.65***	-.04	.35**	.46***	-					
12.	W Non-react	.14	.20	.18	.14	-.24†	.10	.62***	.36**	.37**	.22†	.19	-				
13.	H Satisfaction	.38**	.29*	.24†	.23†	.41	.29*	.04	-.01	.02	-.002	.07	.05	-			
14.	W Satisfaction	.27*	.16	.31*	.06	.03	.20	.13	.20	.18	-.004	.09	-.08	.53***	-		
15.	H Wellbeing	.34**	.28*	.14	.22†	.16	.14	-.04	-.12	.05	-.11	.09	-.05	.46***	.20	-	
16.	W Wellbeing	.29*	.23†	.29*	.09	.08	.10	.30*	.07	.25†	.19	.30*	.11	.44***	.56***	.34**	-

Note. $N = 62$. H = husband, W = wife.

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 2. Descriptive Statistics for Study Variables

	Husband *M* (*SD*)	Wife *M* (*SD*)	Paired t-test *df = 61*
Total Mindfulness	133.42 (16.02)	135.74 (18.67)	0 .79
Observe	25.81 (5.68)	26.42 (6.05)	0.60
Describe	27.34 (6.24)	30.31 (5.87)	2.65*
Aware	29.11 (6.66)	28.08 (6.29)	0.94
Non-judge	28.19 (5.69)	27.98 (6.50)	0.19
Non-react	22.97 (4.39)	22.95 (4.67)	0.02
Relationship Satisfaction	65.58 (12.15)	64.69 (14.20)	0.54
Well-being	3.60 (0.64)	3.53 (0.61)	0.70

Note. $N = 62$.

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 3. Test of Indistinguishability between Husbands and Wives and Model Fit for Each Mindfulness Facet and Total Mindfulness

	Observe	Describe	Aware	Non-Judge	Non-React	Total
APIM constraining means, variances, and actor/partner paths for H and W	$\chi^2(6) = 3.79$, $p = .705$	$\chi^2(6) = 5.30$, $p = .506$	$\chi^2(6) = 4.55$, $p = .603$	$\chi^2(6) = 3.19$, $p = .785$	$\chi^2(6) = 7.18$, $p = .305$	$\chi^2(6) = 7.90$, $p = .245$
Add well-being and constrained means, variances, covariance for actor/partner effects for H and W	$\Delta\chi^2(7) = 6.53$, $p = .479$	$\Delta\chi^2(7) = 5.92$, $p = .549$	$\Delta\chi^2(7) = 5.78$, $p = .566$	$\Delta\chi^2(7) = 4.74$, $p = .692$	$\Delta\chi^2(7) = 5.00$, $p = .660$	$\Delta\chi^2(7) = 10.44$, $p = .165$
Add squared main effects and interaction; constrained means, variances, covariance for actor/partner effects for H and W	$\Delta\chi^2(12) = 10.29$, $p = .591$	$\Delta\chi^2(12) = 14.63$, $p = .262$	$\Delta\chi^2(12) = 18.80$, $p = .094$	$\Delta\chi^2(12) = 20.14$, $p = .064$	$\Delta\chi^2(12) = 23.03$, $p = .027$	$\Delta\chi^2(12) = 36.58$, $p < .001$
Remove constraints on squared term means	-	-	-	-	$\Delta\chi^2(11) = 22.77$, $p = .019$	$\Delta\chi^2(11) = 34.27$, $p < .001$
Remove constraints with all squared and interaction terms term (includes variances, regression paths and covariances)	-	-	-	-	Required	Required
Post-hoc exploratory model changes required to allow model to run	-	-	-		No	Yes
Distinguishability decision	Indistinguishable	Indistinguishable	Indistinguishable	Indistinguishable	Distinguishable	Distinguishable
Fit of final model	$\chi^2(25) = 20.61$, RMSEA < .001, 90% [0, .080], CFI > .999, $\chi^2/df = 0.82$	$\chi^2(25) = 25.85$, RMSEA = .023, 90% [0, .105], CFI = .984, $\chi^2/df = 1.03$	$\chi^2(25) = 29.13$, RMSEA = .052, 90% [0, .119], CFI = .917, $\chi^2/df = 1.16$	$\chi^2(25) = 28.08$, RMSEA = .045, 90% [0, .114], CFI = .934, $\chi^2/df = 1.12$	$\chi^2(13) = 14.87$, RMSEA = .048, 90% [0, .139], CFI = .967, $\chi^2/df = 1.14$	$\chi^2(16) = 20.61$, RMSEA = .068, 90% [0, .144], CFI = .917, $\chi^2/df = 1.29$

Note. H = husbands, W = wives; $\Delta\chi^2$ = the change in χ^2 value comparing the constrained model to the previous model without constraints

Table 4. Results from APIMs Testing Mindfulness Facets as Predictors of Relationship Satisfaction Controlling for Well-being

	Model 1: Observe Mindfulness			
	Relationship Satisfaction			
	b	*B*	*SE*	*p*
Actor Observe	0.35	0.16	0.17	.038
Partner Observe	0.05	0.02	0.17	.770
Actor Well-being	9.15	0.43	1.57	**<.001**
Partner Well-being	3.06	0.14	1.57	.051
Model Fit: $\chi^2(13) = 10.32$, RMSEA < .001, 90%[0, 0.102], CFI > .999, $\chi^2/df = 0.79$				
	Model 2: Describe Mindfulness			
	Relationship Satisfaction			
	b	*B*	*SE*	*p*
Actor Describe	0.23	0.11	0.17	.177
Partner Describe	0.21	0.10	0.17	.233
Actor Well-being	9.16	0.43	1.61	**<.001**
Partner Well-being	2.54	0.12	1.61	.114
Model Fit: $\chi^2(13) = 11.22$, RMSEA < .001, 90%[0, 0.111], CFI > 0.999, $\chi^2/df = 0.86$				
	Model 3: Aware Mindfulness			
	Relationship Satisfaction			
	b	*B*	*SE*	*p*
Actor Aware	0.03	0.01	0.16	.854
Partner Aware	0.02	0.01	0.16	.919
Actor Well-being	9.67	0.46	1.62	**<.001**
Partner Well-being	3.09	0.15	1.62	.056
Model Fit: $\chi^2(13) = 10.33$, RMSEA < 0.001, 90%[0, 0.102], CFI > 0.999, $\chi^2/df = 0.79$				
	Model 4: Non-Judge Mindfulness			
	Relationship Satisfaction			
	b	*B*	*SE*	*p*
Actor Non-Judge	-0.12	-0.05	0.17	.499
Partner Non-Judge	-0.06	-0.03	0.17	.710
Actor Well-being	9.99	0.47	1.62	**<.001**
Partner Well-being	3.25	0.15	1.62	.045
Model Fit: $\chi^2(13) = 7.93$, RMSEA < 0.001, 90%[0, 0.072], CFI > 0.999, $\chi^2/df = 0.61$				
	Model 5: Non-React Mindfulness			
	Relationship Satisfaction			
	b	*B*	*SE*	*p*
Actor Non-React	0.04	0.01	0.22	.863
Partner Non-React	0.31	0.10	0.22	.162
Actor Well-being	9.75	0.46	1.58	**<.001**
Partner Well-being	2.81	0.13	1.58	.074
Model Fit: $\chi^2(13) = 12.17$, RMSEA < 0.001, 90%[0, 0.119], CFI > 0.999, $\chi^2/df = 0.94$				

Note. Bolded *p* values remained significant after Benjamini-Hochberg correction. Actor effects were constrained to be the same for husbands and wives. Partner effects were constrained to be the same for husbands and wives.

Table 5. Results from APIMs testing Discrepancy in Wife and Husband Mindfulness Facets as Predictors of Relationship Satisfaction, Controlling for Well-being

	Model 6: Observe Mindfulness → Relationship Satisfaction			
	b	*B*	*SE*	*p*
Observe Discrepancy	-0.06	-0.14	0.04	.123
Actor Observe	0.38	0.17	0.17	.025
Partner Observe	0.08	0.03	0.17	.650
Actor Observe^2	-0.01	-0.03	0.02	.643
Partner Observe^2	0.002	0.01	0.02	.885
Actor Well-being	8.94	0.42	1.56	**<.001**
Partner Well-being	2.89	0.14	1.56	.065
Model Fit: $\chi^2(25) = 20.61$, RMSEA < .001, 90% [0, .08], CFI > 0.999, $\chi^2/df = 0.82$				
	Model 7: Describe Mindfulness → Relationship Satisfaction			
	b	*B*	*SE*	*p*
Describe Discrepancy	-0.02	-0.04	0.03	.637
Actor Describe	0.22	0.10	0.17	.206
Partner Describe	0.20	0.09	0.17	.248
Actor Describe^2	0.01	0.04/0.03	0.02	.541
Partner Describe^2	-0.01	-0.03	0.02	.622
Actor Well-being	9.20	0.44	1.61	**<.001**
Partner Well-being	2.49	0.12	1.61	.122
Model Fit: $\chi^2(25) = 25.85$, RMSEA = .023, 90%[0, .105], CFI = 0.984, $\chi^2/df = 1.03$				
	Model 8: Aware Mindfulness → Relationship Satisfaction			
	b	*B*	*SE*	*p*
Aware Discrepancy	0.005	0.02	0.03	.877
Actor Aware	0.06	0.03	0.16	.730
Partner Aware	-0.03	-0.02	0.16	.850
Actor Aware^2	0.01	0.04	0.02	.567
Partner Aware^2	-0.02	-0.08/-0.07	0.02	.222
Actor Well-being	9.56	0.45	1.62	**<.001**
Partner Well-being	3.29	0.16	1.62	.042
Model Fit: $\chi^2(25) = 29.13$, RMSEA = .052, 90%[0, .119], CFI = .917, $\chi^2/df = 1.16$				

Table 5 (continued)

	Model 9: Non-Judge Mindfulness Relationship Satisfaction			
	b	*B*	*SE*	*p*
Non-Judge Discrepancy	-0.02	-0.06	0.03	.531
Actor Non-Judge	-0.11	-0.05	0.17	.531
Partner Non-Judge	-0.07	-0.03	0.17	.702
Actor Non-Judge^2	0.01	0.04	0.02	.527
Partner Non-Judge^2	-0.005	-0.02	0.02	.756
Actor Well-being	10.07	0.48	1.62	**<.001**
Partner Well-being	3.16	0.15	1.62	.052
Model Fit: $\chi^2(25) = 28.08$, RMSEA = .045, 90% [0, .114], CFI = .934, $\chi^2/df = 1.12$				

	Model 10: Non-React Mindfulness							
	Wife Relationship Satisfaction				Husband Relationship Satisfaction			
	b	*B*	*SE*	*p*	*b*	*B*	*SE*	*p*
Non-React Discrepancy	0.02	0.03	0.06	.758	0.05	0.10	0.06	.378
Actor Non-React	-0.03	-0.01	0.23	.885	-0.03	-0.01	0.23	.885
Partner Non-React	0.18	0.06	0.23	.438	0.18	0.06	0.23	.438
Actor Non-React^2	0.05	0.13	0.04	.194	-0.03	-0.06	0.05	.503
Partner Non-React^2	-0.09	-0.18	0.05	.070	0.02	0.06	0.04	.546
Actor Well-being	10.19	0.48	1.58	**<.001**	10.19	0.49	1.58	**<.001**
Partner Well-being	2.84	0.13	1.58	.072	2.84	0.14	1.58	.072
Model Fit: $\chi^2(13) = 14.87$, RMSEA = .048, 90%[0, .139], CFI = .967, $\chi^2/df = 1.14$								

Note. Bolded *p* values remained significant after Benjamini-Hochberg correction. Mindfulness facet discrepancy represents the interaction term between husband and wife ratings of a mindfulness facet. Standardized betas for husbands are reported on the left, and standardized betas for wives are on the right. Actor effects were constrained to be the same for husbands and wives in models 6-9. Partner effects were constrained to be the same for husbands and wives in models 6-9. In model 10, actor and partner effects were constrained to be the same between husbands and wives for linear mindfulness terms and well-being, and the discrepancy interaction term and quadratic mindfulness terms were freely estimated.

Table 6. Results from APIMs Testing Mindfulness Facets as Predictors of Relationship Satisfaction Without Controlling for Well-being

	Model 11: Observe Mindfulness			
	Relationship Satisfaction			
	b	*B*	*SE*	*p*
Actor Observe	0.53	0.24	0.19	**.006**
Partner Observe	0.14	0.06	0.19	.469
Model Fit: $\chi^2(6) = 3.79$, RMSEA < .001, 90%[0, 0.125], CFI > .999, $\chi^2/df = .63$				
	Model 12: Describe Mindfulness			
	Relationship Satisfaction			
	b	*B*	*SE*	*p*
Actor Describe	0.47	0.22	0.19	.014
Partner Describe	0.43	0.20	0.19	.024
Model Fit: $\chi^2(6) = 5.30$, RMSEA < .001, 90%[0, 0.154], CFI > .999, $\chi^2/df = .88$				
	Model 13: Aware Mindfulness			
	Relationship Satisfaction			
	b	*B*	*SE*	*p*
Actor Aware	0.21	0.10	0.18	.229
Partner Aware	0.05	0.02	0.18	.793
Model Fit: $\chi^2(6) = 4.55$, RMSEA < .001, 90%[0, 0.141], CFI > .999, $\chi^2/df = .76$				
	Model 14: Non-Judge Mindfulness			
	Relationship Satisfaction			
	b	*B*	*SE*	*p*
Actor Non-Judge	0.15	0.07	0.19	.432
Partner Non-Judge	0.10	0.04	0.19	.611
Model Fit: $\chi^2(6) = 3.19$, RMSEA < .001, 90%[0, 0.109], CFI > .999, $\chi^2/df = .53$				
	Model 15: Non-React Mindfulness			
	Relationship Satisfaction			
	b	*B*	*SE*	*p*
Actor Non-React	0.21	0.07	0.25	.408
Partner Non-React	0.36	0.12	0.25	.153
Model Fit: $\chi^2(6) = 7.18$, RMSEA = .056, 90%[0, 0.181], CFI = .947, $\chi^2/df = 1.20$				

Note. Bolded *p* values remained after Benjamini-Hochberg correction. Actor effects were constrained to be the same for husbands and wives. Partner effects were constrained to be the same for husbands and wives.

Table 7. Results from APIMs Testing Discrepancy in Mindfulness Facets as a Predictor of Relationship Satisfaction Without Controlling for Well-being

	Model 16: Observe Mindfulness			
	Relationship Satisfaction			
	b	*B*	*SE*	*p*
Observe Discrepancy	-0.08	-0.18	0.04	.082
Actor Observe	0.56	0.25	0.19	**.003**
Partner Observe	0.17	0.08	0.19	.363
Actor Observe^2	-0.02	-0.06/-0.05	0.03	.535
Partner Observe^2	-0.003	-0.01	0.03	.905
Model Fit: $\chi^2(15) = 14.32$, RMSEA < .001, 90%[0, 0.115], CFI > .999, $\chi^2/df = .95$				
	Model 17: Describe Mindfulness			
	Relationship Satisfaction			
	b	*B*	*SE*	*p*
Describe Discrepancy	-0.02	-0.05	0.04	.614
Actor Describe	0.45	0.21	0.19	.019
Partner Describe	0.42	0.19	0.19	.030
Actor Describe^2	0.01	0.02	0.02	.817
Partner Describe^2	-0.01	-0.03	0.02	.723
Model Fit: $\chi^2(15) = 15.07$, RMSEA = .009, 90%[0, 0.120], CFI = .997, $\chi^2/df = 1.00$				
	Model 18: Aware Mindfulness			
	Relationship Satisfaction			
	b	*B*	*SE*	*p*
Aware Discrepancy	-0.003	-0.01	0.04	.936
Actor Aware	0.29	0.14	0.18	.116
Partner Aware	0.04	0.02	0.18	.823
Actor Aware^2	0.04	0.13/0.16	0.03	.148
Partner Aware^2	0.002	0.01	0.03	.929
Model Fit: $\chi^2(15) = 15.87$, RMSEA = .031, 90%[0, 0.126], CFI = .950, $\chi^2/df = 1.06$				
	Model 19: Non-Judge Mindfulness			
	No Convergence			
	Model 20: Non-React Mindfulness			
	No Convergence			

Note. Bolded *p* values remained significant after Benjamini-Hochberg correction. Mindfulness facet discrepancy represents the interaction term between husband and wife ratings of a mindfulness facet. Standardized betas for husbands are reported on the left, and standardized betas for wives are on the right. Actor effects were constrained to be the same for husbands and wives. Partner effects were constrained to be the same for husbands and wives.

Table 8. Results from APIMs Testing Total Mindfulness as a Predictor of Relationship Satisfaction Controlling for Well-being

	Relationship Satisfaction			
	b	*B*	*SE*	*p*
Actor Total	0.06	0.08	0.06	.313
Partner Total	0.04	0.06	0.06	.468
Actor Well-being	9.20	0.43	1.67	**<.001**
Partner Well-being	2.72	0.13	1.67	.104
Model Fit: $\chi^2(13) = 18.34$, RMSEA = .081, 90%[0, 0.161], CFI = .897, $\chi^2/df = 1.41$				

Note. Bolded *p* values remained significant after Benjamini-Hochberg correction. Actor effects were constrained to be the same for husbands and wives. Partner effects were constrained to be the same for husbands and wives.

Table 9. Results from APIMs Testing Total Mindfulness as a Predictor of Relationship Satisfaction Without Controlling for Well-being

	Relationship Satisfaction			
	b	*B*	*SE*	*p*
Actor Total	0.17	0.22	0.06	**.008**
Partner Total	0.10	0.13	0.06	.132
Model Fit: $\chi^2(6) = 7.90$, RMSEA = .071, 90%[0, 0.190], CFI = .929, $\chi^2/df = 1.32$				

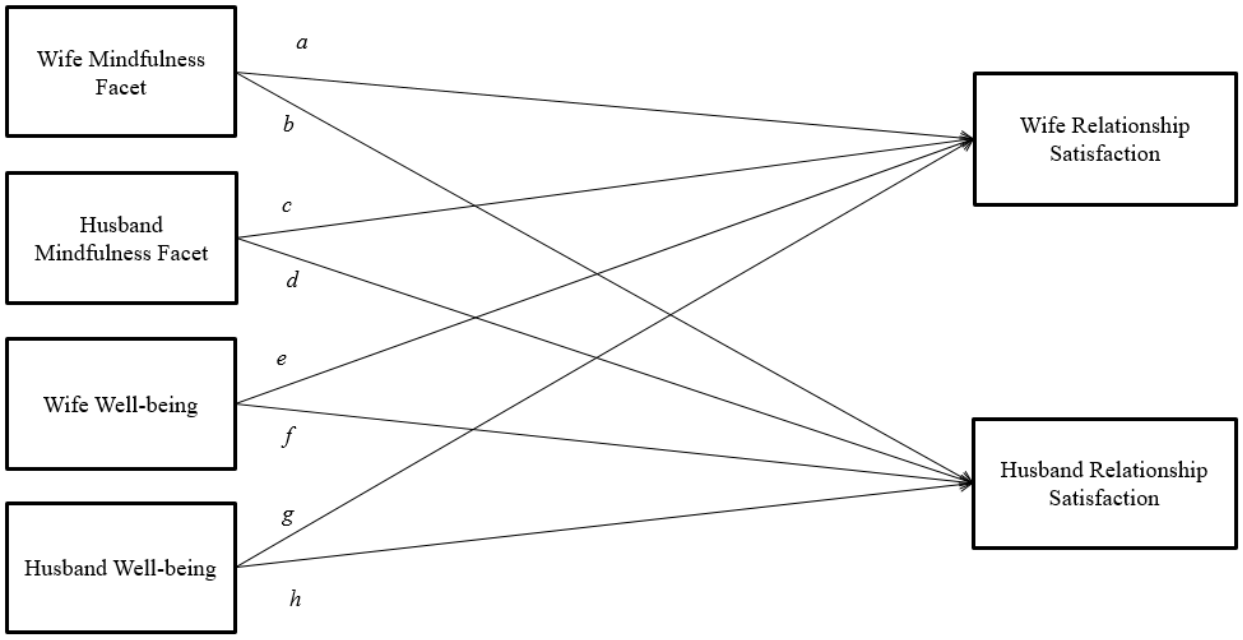
Note. Bolded *p* values remained significant after Benjamini-Hochberg correction. Actor effects were constrained to be the same for husbands and wives. Partner effects were constrained to be the same for husbands and wives.

Table 10. Results from APIMs Testing Discrepancy in Total Mindfulness as a Predictor of Relationship Satisfaction Controlling for Well-being

	Wife Relationship Satisfaction				Husband Relationship Satisfaction			
	b	*B*	*SE*	*p*	*b*	*B*	*SE*	*p*
Total Discrepancy	0.01	0.16	0.004	.085	0.01	0.16	0.004	.085
Actor Total	0.05	0.07	0.06	.368	0.05	0.07	0.06	.368
Partner Total	0.04	0.05	0.06	.493	0.04	0.05	0.06	.493
Actor Total^2	-0.001	-0.02	0.003	.830	-0.005	-0.09	0.005	.336
Partner Total^2	-0.01	-0.16	0.005	.081	-0.01	-0.21	0.003	.062
Actor Well-being	9.56	0.45	1.63	**<.001**	9.56	0.44	1.63	**<.001**
Partner Well-being	2.82	0.13	1.63	.083	2.82	0.13	1.63	.083
Model Fit: $\chi^2(16) = 20.61$, RMSEA = .068, 90%[0, 0.144], CFI = .917, $\chi^2/df = 1.29$								

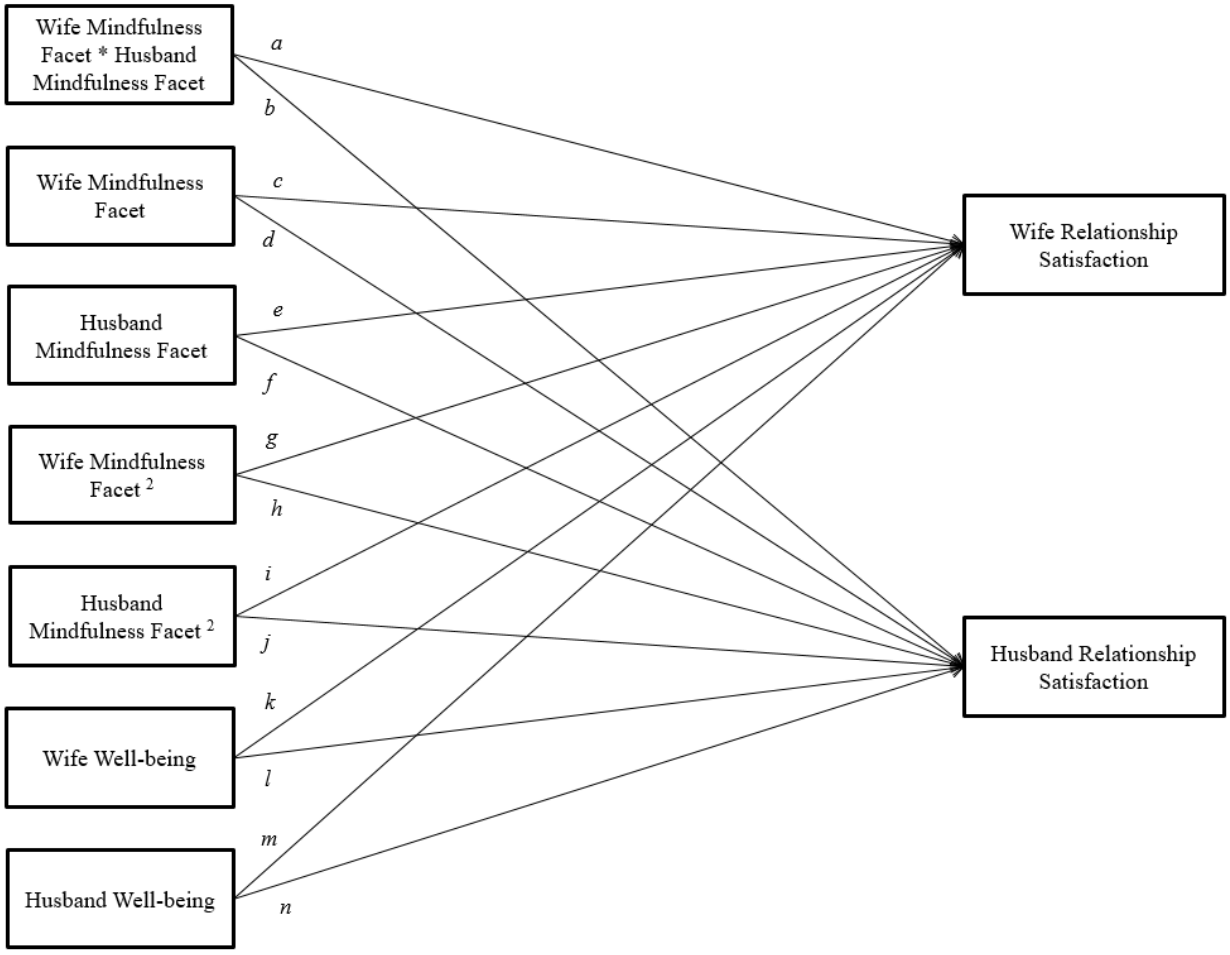
Note. Bolded *p* values remained significant after Benjamini-Hochberg correction. Total discrepancy represents the interaction term between husband and wife ratings of total mindfulness. Actor and partner effects were constrained to be the same between husbands and wives for the discrepancy term, linear mindfulness terms, and well-being, while the quadratic mindfulness terms were free of constraints.

Figure 1. Actor Partner Interdependence Model testing each mindfulness facet as a predictor of relationship satisfaction, controlling for well-being (Models 1-5)



Note: Predictors were allowed to correlate, and the error terms for husband and wife CSI scores were correlated.

Figure 2. Wife and husband mindfulness and the interaction between wife and husband mindfulness predicting relationship satisfaction, controlling for quadratic mindfulness terms and well-being (Models 6-10)



Note: Predictors were allowed to correlate, and the error terms for husband and wife CSI scores were correlated.

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